

significant. separate shipments figures were also obtained for crude minerals going to preparation plants and those going to consumers.

Figures were collected on both quantity and value of shipments. Shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat, and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses were collected. Typically, production was also collected for products for which there are usually significant differences between total production and total shipments as a result of stock changes.

For service industries, the amount received or due for services performed during 1963 was collected as a measure of output. For mine operators who also perform services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6A of each report for individual industries provides the national and regional total shipments from all industries for each of the products primarily to the industries covered in the report. Table 5 provides separate totals for the value of primary products of each industry shipped by the primary industry and the amount shipped by other industries.

## 25. INDEXES OF PRODUCTION AND UNIT VALUE

Based on the type of quantity and value statistics shown in table 6A of the industry chapters, indexes of production and unit value (value of shipments divided by quantity of shipments) have been constructed for the primary products of the industry

produced or shipped by all producers, including those in other industries. These indexes are shown in table 6B of the industry chapters. The 1958 unit values were used as weights in construction of a weighted aggregate production index. A unit value index, weighted by quantity of production or shipments, was also constructed. The latter index was used, where necessary, to deflate value of shipments of products for which no quantity data were available. The indexes for all primary products combined are net indexes and exclude the production of crude minerals used to produce prepared minerals.

A special census report will be issued in cooperation with the Federal Reserve Board on Indexes of Production, consolidating the information shown in the 6B tables into group and total indexes and discussing in some detail the objectives and methodology of the indexes and the data problems and limitations. That report will contain revisions of the table 6B indexes where necessary.

## 26. SHIPMENTS, PRODUCTION, CUSTOM

### MILLING, AND NET SHIPMENTS

Shipments figures include all products physically shipped from the establishment during 1963, including material withdrawn from stockpiles and products shipped on consignment, whether or not

sold in 1963. Prepared material or concentrates include preparation from ores mined at the establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to include, in addition to direct costs of production, a reasonable proportion of company overhead and profits. All values requested f.o.b. the establishment reported.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total and shown separately to avoid duplication with the value of custom milled ores included in (a) or (b).

For industry and industry group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation. In general, where this duplication is significant, figures are shown both for "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation from the gross shipments. Wherever value of shipments is shown without

further specification, it represents gross shipments.

For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications due to mining and later preparing the same material in the same industry.

Another source of duplication in the industry totals for value of shipments, particularly in the major group totals, is the inclusion of the cost of contract work performed by one establishment for another as well as the value of products produced by the assistance of this contract work. Only part of the contract work performed during a given year, however, results in production during that year. Another significant portion results in capital additions to the industry. It was not possible to segregate these two types of contract work in the census tabulations and the exclusion of all receipts for contract work in a computation of net shipments must be considered an over adjustment. Of the types of contract work classified in the mining services industries, only contract mining of minerals and contract pumping of wells would always warrant deduction as duplication in the value of shipments totals, and these items amounted to only 3 percent of the total receipts for contract work by minerals establishments in 1963.

A third element of duplication in the total value of shipments for all mineral industries and the major group totals for the fuel producing in-